# Frequently Asked Questions (FAQ) for the Construction Permitting Section of the Air Quality Bureau

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When in doubt of a permit requirement or if a permit requirement is necessary, call the 1-877-AIR IOWA hotline.

## **Disclaimer**

This document, entitled "Frequently Asked Questions (FAQ) for the Construction Permitting Section of the Air Quality Bureau as of November 17, 2006," is intended to serve as guidance only, and is not to be construed as taking the place of any rule, policy or other law. This document was compiled on November 17, 2006, and may not reflect changes in rule or law that occur after this date. In the event that any information contained conflicts with any enacted rule or law, the rule or law controls. The information included in this document has been compiled in an effort to simplify the permitting process for parties unfamiliar with DNR's rules. Please contact DNR for the most recent applicable rules.

#### Form Items

1) Will the forms be put into the web enabled SPARS?

Eventually, all paper forms will be available in SPARS.

2) For SPARS, what is the procedure for filling out the Form EI?

In SPARS, type in information for each emission unit to compile your Form EI. Otherwise, the facility may fill out the Form EI using the paper form and attach it to the SPARS submittal.

3) Is ACFM or SCFM preferred throughout the application?

SCFM is preferred since our standards are written in scfm. However, the Department can convert from either ACFM or SCFM as long as the exit temperature of the emission point is listed in the application.

4) Does a PE have to fill out forms or does the company have to have a PE?

If a company has hired a consultant to fill out the application, the consultant is required to be a licensed PE. A person under the direct responsible charge of the PE may fill out the forms and have the PE review and sign the appropriate forms. If an employee of the company is completing the application, they do not need to have a PE license nor does their work need to be reviewed by a PE at their facility. The documentation for this requirement can be found at 567 Iowa Administrative Code 22.22.1(3)"b".

5) For construction permit applications do all emission units need to be included?

For construction permit applications, the inclusion of all emission units that are changing are required. That would include any units that may be changing up or down stream of the process being modified due to debottlenecking issues. All emission units at the facility need to be included on the Form EI for every application.

6) What are the potential emissions for a new unit?

Potential emissions are calculated at the standards in the Iowa Administrative Code if no other enforceable limits are in place. The maximum estimated emissions would be the emissions of the unit operating at maximum capacity and for 8760 hours of operation per rolling 12-month period.

7) When doing calculations for potential emissions for a new unit, is estimating the hours of operation acceptable?

No, when calculating the potential emissions for a new unit, you use the maximum hours of operation to determine the maximum estimated potential emissions.

8) What are potential emissions used for?

The potential emissions are used to show if the unit can meet the Iowa Administrative Code Standards.

9) Is it necessary to calculate estimated actual emissions?

No

10) How often does a complete Form EI: Emission Inventory need to be submitted?

Facilities shall submit an entire complete Form EI except Major TV source facilities that have completed a full Form EI within the last five years may submit a Form EI only for those units in the current application being submitted and those units that may be affected by the units in the current application.

11) Do exempt emission units need to be included as part of the Form EI, does this include heat unit, bathrooms, etc.?

Yes, all exemptions including those for trivial activities which have emissions of regulated pollutants need to be included on the Form EI. Emissions from bathrooms, printers, etc. do not need to be included.

12) What is a good Form EI?

A good Form EI is one that includes all emission units that are permitted, unpermitted if any, exempt units, and any fugitive units. Also, the form will have all blanks filled out. For the date, the actual date the unit was installed. For the permit number column, either permit number, pending for the project at hand, or the exemption that is being used (i.e.: 567 IAC 22.1(2)" ").

13) If the emission point is greater than 100 feet from the property line, can you assume the plot plan and MI-2 is not required?

No, Form MI-1 and Form MI-2 are always required for a complete application.

14) Do you have to submit a Form MI-2 if the unit under review only emits VOC, but other units already permitted emit PM?

If the unit being permitted has only VOC emissions, then the Form MI-2 would not be necessary.

15) Do units that vent inside a building need to be put on Form MI-2? What about for other forms?

Yes, units that vent inside should be put on Form MI-2, Form MI-1 and Form EI.

16) Do facilities need to resubmit equipment notification forms for changes in usage limits?

No, the notification forms only need to be submitted for new units, those units that are actually undergoing a physical change or change in the method of operation, and as-built units.

17) Who is the responsible official on the equipment notification form?

For purposes of construction permitting only, the responsible official is whomever the facility designates as the responsible official. The rules governing the Title V program define "responsible official."

18) Will Polk County use the new IDNR construction permit forms?

Polk County may choose to modify these forms.

#### Not Sure if a permit is necessary, who do I call?

#### **General Construction Permit Items**

1) After what date does a source need to obtain a permit?

Any source built, modified, reconstructed, or altered after September 23, 1970, are required to obtain a construction permit. A **source** is defined as any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under Section 112(b) of the Act. **Act** is defined as the Clean Air Act, 42 U.S.C. Sections 7401, et seq. If the source emits only volatile organic compounds (VOC), a construction permit was not needed to be obtained until after April 22, 1987.

2) When did The Iowa DNR - Air Quality Bureau (Department) take over the Prevention of Significant Deterioration (PSD) program?

The Department was given the PSD program on April 22, 1987.

3) Since there is no longer an ambient air standard for total solid particulate (TSP), is TSP still regulated?

Yes. All emission standards for particulate emissions in the federal and state codes are for TSP or Particulate Matter (PM). PSD also has a significance level of 25 tpy for TSP as well as 15 tpy for PM<sub>10</sub>. In addition, PM<sub>2.5</sub> will soon be regulated.

4) Is there a de minimus level for permitting?

No. However, there are exemptions for a variety of sources. The list of exemptions can be found in the Environmental Protection Commission (EPC) Section at 567 of the Iowa Administrative Code (IAC) Chapter 22.1(2).

5) Can a variance from the permit requirements be obtained?

Maybe. A variance requires that severe hardship be demonstrated in order to be granted. Even if a variance is granted, it is only good for at most one year after which a permit must be obtained. More information on variances can be found at 567 IAC 21.2.

6) Does the Department permit the emission unit or the emission point?

The Department writes a permit for each emission point. If a source has more than one stack per emission unit, then it will get a permit for each stack.

7) Can permit applications be submitted electronically?

Yes, permit applications can be submitted electronically by using the web based SPARS.

8) How can copies of permit application forms be obtained?

The forms can be found by going to <a href="http://www.iowadnr.com/air/prof/const/conform.html">http://www.iowadnr.com/air/prof/const/conform.html</a>. The forms can also be found by going to iowacleanair.com or the iowadnr.com websites and follow the links to the construction permit site and the appropriate forms.

9) Does the Department regulate hazardous air pollutants (HAP)?

Yes, the Department will regulate hazardous air pollutants if there is a National Emission Standard for Hazardous Air Pollutants (NESHAP). If the pollutant is a VOC, then the Department would regulate it as such, not a toxic.

10) Could the standard for paint booths be changed to be higher, and why is the 0.01 gr/scf standard for paint booths so low?

No, this standard was established as RACT in the 1970s. The Department does not believe that this standard is set very low. To date, less than 1% of all paint booths have failed stack testing against the standard.

11) If a permit is going to be modified, do you keep old permits?

The facility should keep a copy of the permit that is superseded by the modification to the permit. The Department does retain all permits issued to a facility in the facility file as a historic document. The existing permit is superseded when the permit amendment is issued.

12) What is an example of a normally operating engine?

A normally operating engine would be an engine that is used at any time at the facility and not just for peaking or emergency situations.

13) What is the difference between a property line and a fence line?

The property line is the land the facility owns or leases and has control over. A fence line is where the facility has constructed a physical barrier to prevent access to the property. The fence line is usually somewhere inside the property line.

14) Is it necessary to request a permit limit?

No. It is up to the facility to decide to request a permit limit. There are various reasons to request permit limits such as limit potential-to-emit, ensure "synthetic minor" status for various programs, demonstrate compliance with the National Ambient Air Quality Standards (NAAQS), etc.

15) If an emission unit that vents indoors and is being controlled, is credit obtained for the control equipment?

A controlled emission unit that vents indoors receives no credit for the control efficiency unless a permit (such as a construction permit) is obtained with federally enforceable limits. Federally enforceable limits could also be established by using the Small Unit Exemption.

16) Is the descriptive maximum capacity on the first page of the construction permit an enforceable limit?

No, this is only used as a descriptive term for the type of unit being installed. This helps the field inspectors identify the unit. However, if the maximum capacity is different from that in the application, the permit does need to be amended and permit modification shall be requested.

- 17) Will a submitted construction permit application and issuance of a final construction permit cause for the update of a Title V (TV) permit automatically?
  - No. The facility must request that their TV permit be updated.
- 18) Are there any fees for obtaining a construction permit or a construction permit modification?

There are no fees at this time for obtaining the original construction permit or the request to modify a construction permit.

19) Is observation certification required for Opacity Limits greater than 0%?

Facilities are not required to have a certified reader on site. However, formal readings have to be completed by a certified reader. A certified reader is required if you have an opacity limit in your permit other than no visible emissions, and your permit(s) specifically requires opacity observations be recorded.

- 20) After stack testing, the flow rate specified in the construction permit is not correct, what are the procedures to correct the discrepancy?
  - If the flow rate is off by more than 25% of the value listed in your construction permit, a permit modification should be requested in writing.
- 21) If an emission unit is exempt from construction permitting, does it need to be included in the TV permit?

If emission units are grandfathered or are true fugitive sources, then yes, they may need to be included in the TV permit. You should contact Title V staff to discuss the situation.

22) What are the procedures to know if a construction permit application has been received and determine who is assigned to work on the permit application?

You can check your permit status using SPARS: The website is as follows: http://aq48.dnraq.state.ia.us:8080/wspars/newapp.jsp or call 1-877 AIR IOWA.

23) Can initiation of construction begin before a construction permit is issued by the Department?

Possibly. Reviewing the rule at 567 IAC 22.1(1)"c" addresses when construction may start at a facility.

24) Will quantifying PM<sub>2.5</sub> emissions for construction permitting purposes need to be completed?

EPA and the Department will continue to provide updates to this question. You can always call the 1-877-AIR IOWA hotline.

25) If a permit was issued for an emission unit that was never constructed, do we need to rescind the permit?

A permit for a unit that is permitted, but never constructed becomes void after 18 months if construction has not been started, or if construction has not been completed within 36 months. For a new unit, the permit is void. For a modified unit, the unit is operating without a construction permit and is subject to enforcement action. We ask that facilities request to have the permit rescinded in order to maintain an accurate inventory.

26) How can a small business obtain assistance in filling out a permit application?

Businesses that employ fewer than 100 employees and are non-major sources for TV are eligible for permit development assistance from the Iowa Air Assistance Program at the Iowa Waste Reduction Center (IWRC) in Cedar Falls. The IWRC offers free, non-regulatory, confidential assistance in developing permit applications. The IWRC contact number is 1-800-422-3109.

27) Will the training slides given in November 2005 be posted on the web?

Yes, the presentations have been posted on the web.

28) Will other Sections of the Air Quality Bureau be conducting process improvement events?

None are planned at this time, however, they may be considered in the future

29) The Department improved the turn-around-time, did you add staff?

No, additional staff was not added. Through the Lean Sigma (Kaizen) process, unnecessary or redundant handoffs, loopbacks, and do loops are eliminated. These improvements resulted in the turn-around-time to being reduced and allowed for the Department to establish new goals for permit issuance.

#### **Standard Technical Items**

1) Can equipment be moved to various areas of the same plant?

Equipment can be moved to various areas of the same plant. However, a permit modification may be necessary. If an emission unit is being moved within the same building and all permit conditions are still met and no closer to the property line, most likely the move will not require a permit modification; but you should still check with the Department to ensure there will not be any NAAQS issues due to modeling. If the emission unit is being moved from one building to another building, the Department will generally require a permit modification and a re-evaluation of the dispersion modeling.

2) Is moving equipment to various areas of the same plant considered to be a portable plant?

This situation does not classify the facility of the emission unit as a "portable plant". A portable plant is an operation that is intended to be moved from one work site to another. These work sites could be in different counties or states, an example is an asphalt plant.

3) How should woodworking equipment emissions be estimated?

A conservative way to estimate emissions from woodworking is to determine how much wood is being removed by the cutting unit. If a cutting blade removes a ¼ inch thickness of wood, a depth of 2 inches, and a width of ¼ inch, you could determine the volume of wood removed and assume all of this material is emitted to the atmosphere.

4) How should recirculation spray wash emissions be estimated?

A conservative estimate would be to do a mass balance. Measure the amount of wash at the beginning of the day or week and then keep track of how much material is added back to the spray wash, the assumption is the amount emitted is the difference in the measured amount and the amount added.

5) Does the Department require permits for emergency vents?

If the emergency vent is only used during a malfunction, then a permit is not required. However, if the vent will be used during shutdown, or startup, or any other time when the main emission point cannot be used, the vent would not be considered an emergency vent but a by-pass vent. The by-pass vent requires a construction permit to be obtained.

6) Is it possible to replace an emission unit or piece of control equipment with an identical emission unit or piece of control equipment without modifying your permit?

No, there is no such thing as replacement in kind. If you are replacing any equipment that is already permitted, a permit modification will be required.

7) Can an existing permit be rescinded and then use an exemption?

No, the Department does not rescind existing permits if an exemption is later developed that could have been used by the permitted emission unit(s).

8) If VOC emissions are less than 9.4 tpy, can we assume HAP emissions are less than the HAP emission threshold of 10 tpy?

If this is the only VOC and HAP emitting emission unit at the facility this would be acceptable. However, if there are more VOC and HAP emitting emission units at the facility, this project could add to the other VOC and HAP emissions and could result in the facility exceeding the thresholds of 10 tpy of a single HAP and 25 tpy for total HAP.

9) Are spray booths permitted under the permit-by-rule for spray booths, required to meet the particulate standard?

Yes, spray booths permitted under the permit-by-rule must meet the Iowa Administrative Code emission standard for paint booths for particulate matter of 0.01 gr / scf.

10) Does a generator need to obtain a permit?

The generator shall obtain a construction permit if it is 400 bhp (300 kW) or larger. If the unit is less than 400 bhp, the unit is considered to be exempt. This information comes from 567 IAC 22.1(2)"r".

11) Does a storage silo need a permit?

The storage silo shall obtain a construction permit if it is vented to the atmosphere.

12) Does a fuel / chemical storage tank (underground or above ground) need a permit?

The storage tank is exempt from construction permitting if the size of the unit is less than 10,570 gallons and has an annual throughput of less than 40,000 gallons. IF the size of the tank is greater than 10,570 gallons or the throughput is greater than 40,000 gallons then the unit would not need a permit if the maximum true vapor pressure is less than 0.75 psia. If the storage tank does not meet these criteria submit a construction permit application. This information comes from 567 IAC 22.1(2)"m" and 567 IAC 22.1(2)"t".

13) If NESHAP or NSPS requirements are not listed in the permit but the emission unit(s) subsequently becomes subject to a newly promulgated NESHAP or NSPS, does the permit need to be modified?

No, a permit modification would not need to be made. However, the permittee is responsible for compliance with the newly promulgated federal rules and any other applicable requirements.

14) If the permit is being changed, will the NESHAP or NSPS requirement be added to reflect that this unit is subject to a NESHAP or NSPS?

Yes, we will try to make the change if we become aware that there is an applicable NESHAP or NSPS. If you are aware of the requirement, the Department encourages you to bring to our attention so the permit is written accurately.

# Not Sure if a permit is necessary, who do I call?

#### **General Complex Process Items**

1) Is a pre-application meeting required? Does the meeting have to be at the Department?

No, a pre-application is not required. However, if the pre-application meeting is not completed the 180 day timeline for a PSD permit application cannot be guaranteed and the application will be completed as timely as possible. Also, without a pre-application meeting for a Non-PSD Complex Project (ethanol facilities) the 90-day timeline for a permit cannot be guaranteed and the application will be completed as timely as possible.

The pre-application meeting may take place anywhere. The Department would prefer to have the meeting at the facility to be able to obtain an understanding of how the new equipment will contribute to the rest of the facility if adding to an existing facility. If the project is for a greenfield site, the location of the meeting is up to the applicant.

2) When is the pre-application meeting to occur?

The pre-application should be within 90 days prior to submitting the final complete application to the Department.

3) Is the 80% complete application wanted before the pre-application meeting?

Yes, the Department requests that the 80% complete application be submitted at a minimum one week prior to the pre-application meeting.

4) What are need in the pre-application meeting materials – construction quotes, bids, estimates, etc.?

The pre-application materials should contain an 80% application that could include construction quotes, bids, estimates, BACT determinations, modeling protocol, application forms, emission calculations, etc. In addition to this information, there should be an agenda stating what outstanding information would like to be discussed in addition to the pre-application, who will be in attendance, who from the Department is being requested to be at the meeting, where the meeting is to take place, how long the meeting will be, etc.

5) For the pre-application meeting and the requirement of having the application nearly complete, the Responsible Official does not want to sign this document, how should this be handled?

For the pre-application and the 80% complete application, the Responsible Official does not need to sign. It is the final application that will be submitted that needs to be signed.

6) The Department does not want to conduct a meeting earlier than three months from submittal of the application. What should happen if a company wants to start the process earlier?

The Department has no problem with conducting meetings further than three months from the submittal period. However, when it comes to talking about the submitted application, the Department wants to discuss the application within three months of submittal as if the meetings are conducted further out, there is the potential loss of information from that meeting.

7) Can you have an introductory meeting prior to application development?

Yes, an introductory meeting can be done. However, you still will need to do the 80% preapplication meeting no greater than 90 days from submittal of the final application to the Department.

8) What is the time frame for a minor change to a PSD permit?

For a minor change to a PSD permit, this would be classified as one of the 90 day items in general.

9) What if a project waits for assignment, do you still meet the 180 day goal?

The Department will try its best to meet the 180 day goal unless an "off-ramp" is encountered. An "off-ramp" is considered to be an outstanding issue that cannot be resolved in a timely manner.

10) Are all construction permit modifications involving NESHAP considered to be non-PSD complex? (a new continuously monitored parameter is required for an existing control device due to a new NESHAP)

No, the type of modification will dictate if the project will be considered a Standard or Complex project.

11) Is there a standard operating procedure for permit writers? Is there a manual?

Currently, the Department is developing the Standard Operating Procedures (SOP) Manual. The permit writers have a three to six month training program when first hired and through doing projects over the years develop the skills to handle more difficult projects.

12) How much time does a company have for a request for additional information? What happens in this process?

Our rules, at 567 Iowa Administrative Code 22.2, allow a company up to 60 days to provide the additional information. The Department will continue to work on the project as much as possible while we are waiting for the information. The Department will contact the facility intermittently to see if progress is being made in collecting the additional information or if the facility has questions on what is being requested. However, if the facility takes 60 days for critical information the Department will not be able to meet our permit issuance goals. Failure to receive the information within the 60-days will result in denial of the project.

13) EPA has a copy of the application. The Department staff asks questions. What type of interaction is there between the two agencies and what type of questions? Some people fear EPA could have too much oversight, is this happening?

The interaction between the two agencies is generally correspondence on possible determinations on new NSPS or NESHAP applicability, recent BACT determinations that may not be in the RACT / BACT / LAER database, and new or recent policy guidelines that have been established. The Department will review these comments and incorporate the comments as necessary.

EPA has oversight but the Department makes in general all final determinations taking into account EPA's comments. For the most part the Department makes a determination and then EPA may comment on that determination.

14) If an EPA policy review is requested, does become back on track from the "off-ramp"?

Generally, if a policy determination from EPA (usually at the request of the facility) is necessary then the delay may cause the process to exceed the goals for issuing permits. If the project had already taken an off-ramp this review may put you back on track. The specific situation will dictate where the project is placed on the track.

#### Not Sure if a permit is necessary, who do I call?

#### **Complex Technical Items**

1) Does the Department look at all pollutants for PSD?

The Department reviews all criteria pollutants plus all pollutants that are emitted by the emission unit(s) being permitted. Specifically, the Department reviews all PSD pollutants for the PSD program. The Department also reviews other pollutants as related to their specific programs (i.e.: HAP for NESHAP).

2) Is there a link for the New Source Review Workshop Manual dated October 1990 (i.e. puzzle book)?

http://www.epa.gov/nsr/publications.html

or

http://www.epa.gov/region07/programs/artd/air/nsr/nsrmemos/1990wman.pdf

3) Does DNR provide any documentation for evaluating impacts from oxides of nitrogen on vegetation other than the document provided on your website?

No. The applicant is responsible for determining the sensitivity of various soils and vegetation. Information can be obtained through a literature search and contacts with local universities and experts on local soils and vegetation. Some additional references are listed in EPA's draft "New Source Review Workshop Manual", October 1990.

## Not Sure if a permit is necessary, who do I call?

# **General Dispersion Modeling Items**

1) What stack diameter should be used when there is a Chicago style stack cap?

The inside diameter of the Chicago cap should be used as the diameter of the stack.

2) In general, how do the AERMOD and ISC model predictions compare?

This information, which is difficult to summarize here, can be found at EPA's SCRAM website: http://www.epa.gov/scram001.

3) Can dispersion modeling be required for any application?

Yes, with the general exception of VOC-only units (though there may still be modeling required in a few cases). More details may be found in the Department's Dispersion Modeling Guidelines at: <a href="http://www.iowadnr.com/air/prof/progdev/dispmodel.html">http://www.iowadnr.com/air/prof/progdev/dispmodel.html</a>

4) Is dispersion modeling guidance given on your web site?

Yes, at http://www.iowadnr.com/air/prof/progdev/dispmodel.html.

5) Is an emission point modeled even if it will be installed at greater than 100 feet from the property line?

The Department has the discretion to model any emission source at a facility, including doing facility-wide modeling.

6) What years of meteorological data will the Department use for AERMOD?

2000 through 2004.

7) What is front end software?

Front end software is an interface with the dispersion model (such as ISC or AERMOD) that makes it easier for the modeler to build, modify, or evaluate the model, and to interpret the results.

8) Are modeling files and reports available to the public?

We keep a complete record of our modeling projects. These records are available to the public upon request.

9) Does the Department do the modeling for major sources in lieu of their having to hire a consultant?

For major sources, the facility or their consultant usually is required to conduct the modeling. If we have existing modeling for the major source and available staff, we may do it for them as resources allow.

#### **Complex Dispersion Modeling Items**

1) If there are known modeling issues, can modeling section staff be contacted by the facility or consultant?

Yes, the Department encourages facilities and consultants to work directly with all areas of the Bureau to ensure the submittal of the most accurate and complete application.

2) How often has pre-construction monitoring actually been required?

Pre-construction monitoring has only been required for a few projects in Iowa. Data from existing monitors may be used with approval from the Department.

3) What is the model required by the Department after December 9, 2006?

Modeling projects submitted after December 9, 2006, are required to use the AERMOD model.

4) What is considered to be ground level elevation?

Ground level elevation is the elevation directly below the stack.

#### Not Sure if a permit is necessary, who do I call?